

The following Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1. (Currently Amended) A method for installing a refrigeration device ~~that comprises~~ comprising:
a ~~heat source unit (2, 802, 1002, 1102, 1502, 1802, 2002, 2102, 2502, 2802, 3002, 3102) having a compressor (21) and a heat source-side heat exchanger (23);~~
a ~~utilization unit (5, 3005) having a utilization-side heat exchanger 51; and~~
a ~~refrigerant connection pipe (6, 3006, 7, 3007) for connecting said heat source unit and said utilization unit, comprising;~~
a ~~refrigerant circuit formation step for~~
forming a refrigerant circuit ~~(10, 3010, 3110) by connecting a said heat source unit having a compressor and a heat-source-side heat exchanger to a and said utilization unit having a utilization-side heat exchanger via a said refrigerant connection pipe; and~~
performing a non-condensable gas discharge operation step for comprising
operating said compressor,
recirculating the refrigerant ~~in~~ through said refrigerant circuit,
cooling and separating at least a portion of the refrigerant that
flows between said heat-source-side heat exchanger and said
utilization-side heat exchanger into a liquid refrigerant and a
gas refrigerant that includes ~~the~~ a non-condensable gas
remaining in said refrigerant connection pipe,
separating said non-condensable gas using a separation membrane
~~(34b, 1034b, 2063b, 2064b)~~ from said gas refrigerant obtained
by gas-liquid separation, and
discharging said ~~the~~ non-condensable gas ~~to the~~ outside of said
refrigerant circuit.

2. (Currently Amended) The method ~~for installing a refrigeration device~~ as recited in ~~Claim 1~~ claim 1, wherein

~~in~~ said non-condensable gas discharge operation is performed such that ~~step~~, the refrigerant that flows between said heat-source-side heat exchanger (23) and said utilization-side heat exchanger (51) is separated into said a liquid refrigerant and said a gas refrigerant that includes said non-condensable gas, after which said gas refrigerant obtained by said gas-liquid separation is cooled.

3. (Currently Amended) The method ~~for installing a refrigeration device~~ as recited in ~~Claim 1 or Claim 2~~ claim 1, further comprising [[:]]

~~an airtightness testing step for testing the airtightness of said refrigerant connection pipe (6, 3006, 7, 3007) prior to~~ performing said non-condensable gas discharge operation ~~step~~; and

~~an seal gas releasing step for releasing seal gas into the atmosphere the seal gas to reduce the pressure thereof inside said refrigerant connection pipe after~~ performing said airtightness testing step.

4. (Currently Amended) A refrigeration device ~~(1—801, 1001, 1101, 1501—1801, 2001, 2101, 2501—2801, 3001, 3101)~~ comprising

~~a refrigerant circuit (10, 3010, 3110) in which~~

~~a utilization unit (5, 3005) having a utilization-side heat exchanger; (51), and~~

~~a heat source unit (2—802, 1002, 1102, 1502—1802, 2002, 2102, 2502—2802, 3002, 3102) having a compressor (21) and a heat-source-side heat exchanger (23) are connected via a refrigerant connection pipe to form a refrigerant circuit; (6, 3006, 7, 3007), said refrigeration device further comprising:~~

~~a cooler (32, 332, 832) that is connected to a liquid-side refrigerant circuit (11, 3011, 3111) for~~ of said refrigerant circuit that connects ~~connecting~~ said heat-source-side heat exchanger to said utilization-side heat exchanger, and said cooler being configured to cool ~~that cools~~ at least a portion of the refrigerant that flows between said heat-source-side heat exchanger and said utilization-side heat exchanger when ~~as~~ said compressor is operated and the refrigerant is recirculated in said refrigerant circuit;

a gas-liquid separator configured to separate (33) ~~for separating~~ the refrigerant cooled by said cooler, into a liquid refrigerant and a gas refrigerant that includes a ~~the~~ non-condensable gas remaining in said refrigerant connection pipe; and

a separation membrane device ~~(34, 1034, 2034, 2134)~~ having a separation membrane configured to separate (34b, 1034b, 2063b, 2064b) ~~for separating~~ said non-condensable gas from the gas refrigerant obtained by gas-liquid separation using said gas-liquid separator, and configured to discharge said non-condensable gas separated by said separation membrane ~~for discharging to the outside of the refrigerant circuit said non-condensable gas separated by said separation membrane.~~

5. (Currently Amended) The refrigeration device ~~(1—701, 1001, 1101, 1501—1801, 2001, 2101, 2501—2801, 3001, 3101)~~ as recited in ~~Claim 4~~ claim 4, wherein

said liquid-side refrigerant circuit ~~(11, 3011, 3111)~~ further has a receiver ~~(25)~~ capable of collecting configured to collect the refrigerant that flows between said heat-source-side heat exchanger and said utilization-side heat exchanger; and

said cooler ~~(32, 332)~~ is configured to cool ~~cools~~ the gas refrigerant including said non-condensable gas that is separated into gas and liquid inside said receiver.

6. (Currently Amended) The refrigeration device ~~(1—801, 1001, 1101, 1501—1801, 2001, 2101, 2501—2801, 3001, 3101)~~ as recited in ~~Claim 4 or Claim 5~~ claim 4, wherein

said cooler includes (32, 332) is a heat exchanger that uses ~~as a cooling source~~ the refrigerant that flows through said refrigerant circuit as a cooling source.

7. (Currently Amended) The refrigeration device ~~(1—201, 401, 501, 701, 1001, 1101, 1501—1801, 2001, 2101, 2501—2801, 3001, 3101)~~ as recited in ~~any one claim of Claim 4 through Claim 6~~ claim 4, wherein

said cooler includes (32) ~~is~~ a coiled heat transfer tube disposed inside said gas-liquid separator ~~(33)~~.

8. (Currently Amended) The refrigeration device (~~1-301, 501-801, 1001, 1101, 1501-1801, 2001, 2101, 2501-2801, 3001, 3101~~) as recited in ~~any one claim of Claim 4 through Claim 7~~ claim 4, wherein

said gas-liquid separator (~~33~~) is connected so that the liquid refrigerant that is separated into gas and liquid in said gas-liquid separator is returned to said receiver (~~25~~).

9. (Currently Amended) The refrigeration device (~~701, 801~~) as recited in ~~Claim 8~~ claim 8, wherein

said gas-liquid separator (~~33~~) is integrally formed with said receiver (~~25~~).

10. (Currently Amended) The refrigeration device (~~501, 601, 701~~) as recited in ~~any one claim of Claim 4 through Claim 9~~ claim 4, wherein

said separation membrane device (~~34~~) is integrally formed with said gas-liquid separator (~~33~~).

11. (New) The refrigeration device as recited in claim 5, wherein
said cooler includes a heat exchanger that uses the refrigerant that flows through said refrigerant circuit as a cooling source.

12. (New) The refrigeration device as recited in claim 5, wherein
said cooler includes a coiled heat transfer tube disposed inside said gas-liquid separator.

13. (New) The refrigeration device as recited in claim 5, wherein
said gas-liquid separator is connected so that the liquid refrigerant that is separated into gas and liquid in said gas-liquid separator is returned to said receiver.

14. (New) The refrigeration device as recited in claim 13, wherein
said gas-liquid separator is integrally formed with said receiver.

15. (New) The refrigeration device as recited in claim 5, wherein
said separation membrane device is integrally formed with said gas-liquid separator.

16. (New) The refrigeration device as recited in claim 6, wherein said cooler includes a coiled heat transfer tube disposed inside said gas-liquid separator.
17. (New) The refrigeration device as recited in claim 6, wherein said gas-liquid separator is connected so that the liquid refrigerant that is separated into gas and liquid in said gas-liquid separator is returned to said receiver.
18. (New) The refrigeration device as recited in claim 17, wherein said gas-liquid separator is integrally formed with said receiver.
19. (New) The refrigeration device as recited in claim 6, wherein said separation membrane device is integrally formed with said gas-liquid separator.
20. (New) The method as recited in claim 2, further comprising testing for airtightness of said refrigerant connection pipe prior to performing said non-condensable gas discharge operation; and releasing seal gas into atmosphere to reduce pressure inside said refrigerant connection pipe after performing said airtightness testing step.